The Public's HEALTH
The Rhode Island Department of Health

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Doing Public Health Better!

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Public health focuses on the entire population without losing sight of the individual. Take clean, safe drinking water, for example. It touches every man, woman and child in every community, every day. At the same time, we can't overlook the individual: the one that needs flu vaccine or lives in a nursing home. Keeping the right balance is incredibly important and often incredibly difficult.

By most accounts we already do a pretty good job of this in RI! That's why I approach the near-term future of public health here as an opportunity for what I call "Doing Public Health Better." "Doing better" means improving on what we do now and evaluating our success. In era of increasing needs and limited resources, performance improvement may be one way to meet the public's expectations.

Looking forward I want to focus initially on four key areas for "doing public health better."

- Health disparities acknowledge the goal of eliminating differences for racial and ethnic minority populations on key measures of health, mortality, behavioral risks and access to health care in RI.
- Inspection and enforcement help to assure the quality of nursing home care, but preventing poor care through quality improvement is preferable to detecting (and correcting) problems after they occur.
- Childhood obesity and lack of physical activity are symptoms of a state and national problem. In RI over 25% of children are overweight; only one-third engage in enough physical activity to meet health guidelines.
- More than ever, public health is called upon to respond to both natural and man-made emergencies. Emergency preparedness involves building on what we do every day to respond to emergency situations and protect the public's health.

The tools for accomplishing these goals cut across many public health priorities.

- Prevention seeks to avoid death and disease through vaccines, risk reduction, lifestyle change and public policy.
- Customer service means responding quickly and expertly to citizens' needs for professional licenses, vital records (births, deaths, marriages, adoptions), biological and environmental testing, childhood vaccines, complaint processing and many other services.

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- Information technology promises to make our work more efficient, reduce record keeping errors and promote access to critical information.
- We also want to provide public health information through the news media, the website and other materials; giving everyone the credible information they need to stay informed and make healthy decisions.
- Finally, we can't do this alone. Improving performance will take partnership and collaboration with many community and professional groups throughout the state.

We can work together to "Do Public Health Better" over the next several years and make Rhode Island a model for assuring safe and healthy lives in safe and healthy communities. It's a challenge, and an opportunity, that's important to us all.

R I Crash Outcome Data Evaluation System (CODES)

by Ted Donnelly, RN, MPH
Center for Health Information & Communications

Highway safety is a major public health issue. Motor vehicle crashes lead the causes of death for Americans aged 1-34. In addition, thousands of teenagers and young adults in the United States, and hundreds in Rhode Island, are hospitalized each year after motor vehicle crashes. Even more require treatment in hospital Emergency Departments.

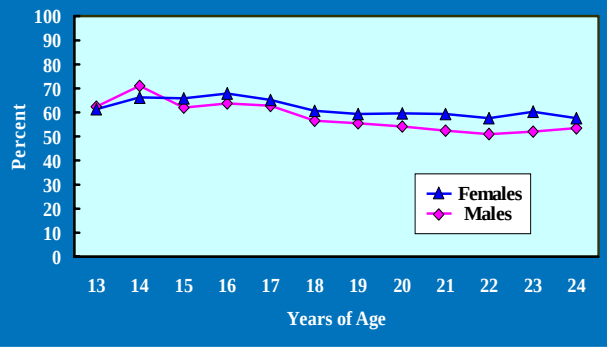
Many motor vehicle crash deaths are preventable through programs that target impaired driving, use of occupant protection, driver awareness, and technological improvements. Healthy People 2010 addresses these through the Leading Health Indicator for Injury. One objective calls for the reduction of the motor vehicle death rate. Other objectives relate to the use of passenger restraints and motorcycle helmets.

Different government agencies collect information about motor vehicle crashes and injuries, each from its own perspective. The police officer's report does not record what happens in the hospital and the hospital record does not include details of the crash. If someone links all the information, it becomes more useful. The National Highway Traffic Safety Administration (NHTSA) funds the RI CODES project and similar projects in about twenty-five states. The RI CODES project links records from four existing data sets and analyzes the linked records to answer questions about the connection between motor vehicle crash variables and outcomes. The outcomes include property damage, injury, transport by ambulance, admission to the hospital, and death.

RI CODES links records from four related databases:

- Motor Vehicle Crash—Police officers collect information on motor vehicle crashes at the crash sites and send reports electronically to the RI Department of Transportation;
- Emergency Medical Services (EMS)—Emergency Medical Technicians complete Ambulance Run Reports at the completion of each patient transport and send the data to the Rhode Island Department of Health (HEALTH), Office of EMS.

Fig 1. Reported Use of Safety Seats and Seat Belts by Young People Aged 13-24, RI Crash Reports 2001



- Hospital Discharge Data—Acute-care hospitals licensed in Rhode Island record detailed patient-level information on diagnoses, procedures, charges, and other factors on each patient admitted for an overnight stay. The hospitals send a computer file with these records to HEALTH's Office of Health Statistics on a quarterly basis.
- Death Certificates—The Office of Vital Records at the Department of Health collects information on every death in the state. The Office of State Medical Examiners certifies most injury deaths.

A Board of Directors, composed of those who gather and process the data, oversees the CODES project. They meet regularly to monitor progress, define issues, and provide support. A larger Advisory Committee meets twice a year and is made up of members who represent organizations which share a concern for highway safety.

The RI CODES epidemiologist links the records in the four databases using software developed by NHTSA. He produces an analysis of the combined dataset and uses it to evaluate a highway safety rule or proposed state legislation. For example, "Does seatbelt use by drivers and passengers decrease the severity of injury and the charges from hospitalizations that result from motor vehicle crashes?" RI CODES produced a report on the benefits of seatbelt use using linked data—showing that seatbelt users were two to three times less likely to die, receive a severe injury or undergo hospitalization. Find this Health Policy Brief at: http://www.health.ri.gov/chic/statistics/codes_publications.php

The RI CODES project also showed that motorcyclists killed in crashes in Rhode Island were many times less likely than survivors to be wearing a helmet.

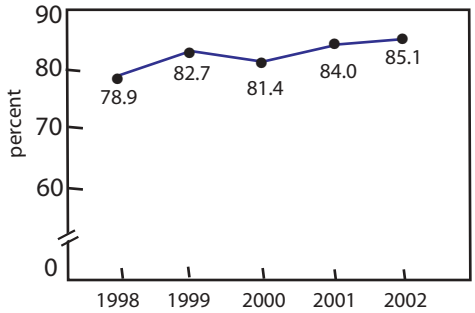
Trauma System Advisory Committee Developing Emergency Room Protocols

by David Parker, MBA, Ph.D
Trauma System Manager

Your spouse sits bleeding in a car accident. You fall off the ladder and your legs feel numb. Your child crumbles unconscious on the athletic field. Someone calls 911. The ambulance and EMTs arrive almost immediately and begin to stabilize the patient. Next stop: The Emergency Room. But which one?

While Rhode Island experiences a high volume of trauma, most of the injuries do not require the Level I (the highest level) trauma care capabilities of Rhode Island Hospital (RIH). Of the 24,254 trauma patients discharged by the state's acute care hospitals between 1998 and 2002, only 2,517 (10%) were injured severely enough (16+ on the Injury Severity Score) to require the services of a Level I trauma center. Of these, 2077 (82.5%) were taken to Rhode Island Hospital, but 440 (17.5%) were transported elsewhere. Should some of the patients who went to other hospitals have gone to RIH, or were there other circumstances that made more

Percent of Discharges with Primary Diagnosis of Trauma and ISS, aged16 and older, who were treated at the Trauma Center, Rhode Island, 1998-2002



immediate attention mandatory? If such patients required immediate care and a trip to RIH would have been too long or RIH ER was closed due to overcrowding, were they transported to the next best hospital? Were they stabilized at a closer hospital and later flown to RIH or even Boston? Or did their families insist that they be taken to a local hospital with less capacity for care of severely injured trauma patients?

Such questions have been difficult to answer in Rhode Island because there have been no requirements for Emergency Department trauma care capabilities beyond rudimentary standards for licensing. Concerned with the lack of standards and using funds from HRSA grants, the Rhode Island Department of Health (HEALTH) developed a Trauma System Advisory Committee (TSAC), and commissioned the American College of Surgeons (ACS) Trauma System Consultation team to assess the state's system for providing, evaluating and improving trauma care.

ACS found that Rhode Islanders do have good access to definitive trauma care, but the state needs a strong quality assurance program. The study also revealed that the state's Emergency Medical System transports the vast majority of the patients appropriately to RIH, the state's only Level I trauma Center. (RIH voluntarily achieved and has maintained Level I ACS certificate since 1996).

The ACS team recommended that HEALTH seek legislation specifically defining the department's authority to designate trauma centers and a bill to this effect has been drafted for consideration in the current legislative session. If passed, HEALTH could require hospitals to define their trauma care capabilities in relation to a specific set of requirements for one of four levels of certification and to undergo a formal verification process at three-year intervals.

With such a system, ambulance crews would know immediately the next best hospital for a particular patient if the most appropriate one is too far away or too overcrowded.

The ACS team also urged the development of improved information systems and a formal performance improvement program with mandatory participation by all hospitals and EMS services providing care for trauma patients. The TSAC is using the findings of the study and a new assessment instrument just released by HRSA to complete a formal, statewide trauma system plan . The plan, the first draft of which is expected by early 2006, will provide a means of improving trauma treatment by raising standards, monitoring care, and facilitating better coordination between hospitals, EMS services and rehabilitation facilities both within the state and across state borders.

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Hospital Network for Bioterrorism Preparedness

by Tom Kilday, Hospital Preparedness Coordinator

Bioterrorism preparedness for hospitals plays a major role at the RI Department of Health (HEALTH). From the very beginning, the Hospital Association of Rhode Island (HARI) and the 14 acute care hospitals organized and planned, as a network, their response to a mass outbreak of disease in Rhode Island.

HARI, which represents most of the acute-care hospitals, strongly supports the joint planning and implementation process and helped organize the hospital network. In the first year of the grant, HARI assessed all the hospitals in several areas of emergency preparedness including information technology, laboratory response and infectious disease capabilities. In 2001 they formed the Hospital Emergency Planning Committee (HEPC) using funds from HEALTH's bioterrorism (BT) program to plan for sharing and expanding hospital services in an emergency.

Later that year, the federal government offered specific funds for hospital preparedness through the Health Services Resource Administration (HRSA). In response Rhode Island formed the Hospital Preparedness Planning Committee (HPPC), a group formally led by HEALTH and facilitated by HARI.

The HPPC serves as a forum for hospitals, HEALTH, the RI Emergency Management Agency and other appropriate agencies (such as Butler and Bradley Hospitals, the Narragansett Indian Health Center, the RI Primary Care Physician Advisory Committee, and the RI Health Care Association) to develop a response to a public health crisis, including bioterrorism.

The group

- reviews background information on local-level hospital emergency planning activities;
- identifies resources and training needs;
- coordinates and integrates external hospital emergency planning and response efforts;
- develops a networked plan for response in RI; and
- works to fulfill the requirements of the HRSA Bioterrorism Hospital Preparedness Program.

Using the HPPC as the infrastructure, HEALTH has provided HRSA funding to the hospitals for basic terrorism preparedness equipment, such as:

Hospital team dressed for action

- decontamination (decon) facilities where those exposed to a chemical release or some biological agents s can wash off and change into clean clothing before entering the hospital and possibly contaminating the staff and other patients.
- Personal protection gear for staff responding to a contaminated site, or treating a patient who can not be decontaminated
- Improved communications equipment for the hospital laboratories testing for BT agents.